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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,555	03/25/2004	Yoshiharu Sugano	S004-5251	7928

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EXAMINER

AURORA, REENA

ART UNIT PAPER NUMBER

2862

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/809,555

Applicant(s)

SUGANO, YOSHIHARU

Examiner

Reena Aurora

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 - 3 and 10 - 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2, 3 and 10 - 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This communication is in response to amendment received on 03/31/06.

Applicant has canceled claims 4 – 9.

Applicant has added new claims 10 – 13.

Claims 1 – 3 and 10 – 13 are presented for examination.

#### ***Claim Objections***

Claim 10 is objected to because of the following informalities: As to claim 10, at line 11, it is unclear what the contact is, applicant is suggested to replace the word "contact" with the word "cantilever". Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimazawa et al. (6,294,911) in view of Xiao (6,657,431).

As to claim 1, Shimazawa et al. (hereinafter Shimazawa) discloses a method of measuring magnetization including a magnetic field generating (20, fig. 2) mechanism

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that generates a magnetic field in a target area (26) on an object to be measured; a cantilever having a conducting probe (27) the cantilever being supported so that the probe can be brought into contact with the target area; a voltage source (33) for applying a voltage to the probe (27); and an electrical property measuring section (34) for measuring a current or an electrical resistance between the probe (27) and the object (26) in contact with each other. Shimazawa fails to show a magnetic sensor that measures the magnetic field near the target area and a moving mechanism that moves the cantilever relative to the object to carry scanning while keeping the probe in contact with the object; a bending mechanism that measures an amount of bending of the cantilever when the probe is brought into contact with the object; a control section that controls the moving mechanism so as to maintain the bending amount of the cantilever constant. Xiao discloses scanning magnetic microscope having a magnetic sensor (10, fig. 3) for measuring the magnetic field. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Shimazawa with the teachings of Xiao such that providing a magnetic sensor near the target to accurately measure the magnetic field as the scan of the target area proceeds. Xiao further discloses a bending mechanism that measures an amount of bending of the cantilever when the probe is brought into contact with the object; a control section that controls the moving mechanism so as to maintain the bending amount of the cantilever constant (22A, 23A, Electronics, fig. 3 and 4, col. 9, lines 35 – 39, lines 44 – 51 and col. 9, line 67 – col. 10, line 10). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Shimazawa with the

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teachings of Xiao such that providing a bending mechanism and a control mechanism to maintain the bending amount of the cantilever of Schimazawa would decrease the positioning error of the device.

***Allowable Subject Matter***

Claims 2 – 3 and 11 – 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments with respect to claims 1 – 3 and 10 - 13 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reena Aurora whose telephone number is 571-272-2263. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, E. Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Reena Aurora